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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,658	08/28/2003	Atsushi Sakamoto	1232-5110	1909
27123	7590	12/06/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			TRAN, LY T	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/652,658

Applicant(s)

SAKAMOTO ET AL.

Examiner

Ly T. TRAN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-5, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto JP 06055730) in view of Ito et al (USPN 5,75,609).

With respect to claims 1, 3-5, Sakamoto discloses an ink jet printing apparatus comprising:

- A carriage (Abstract, Fig.1-4: element 6)) mounted with a printing head (element 7) for ejecting ink and for scanning the printing head in a main scanning direction
- Suction means for sucking ink from the printing head (element 12)
- Capping means (Abstract) for performing a cap closing operation in which an ejection port surface of the printing head is covered with a cap member when the suction means sucks ink from the printing head and performing a cap opening operation in which the cap member is separated from the ejection port surface after suction by the suction means; and

- help means (Fig. 1: element 3, 6) performing a cap opening help operation that facilitates the cap opening operation, when the capping means performs the cap opening operation

With respect to claim 3, Sakamoto discloses the cap opening and cap closing operations by the capping means are performed by means of moving of the carriage in the main scanning direction (Abstract).

With respect to claim 8, since Sakamoto discloses the help means, the manner of operating the device does not differentiate the apparatus claim from the prior art.

With respect to claims 9 and 11, Sakamoto discloses the help means includes means for performing a micro-reciprocating motion of the carriage in the main scanning direction because the carrier is reciprocating along the guide shaft.

With respect to claims 10, Sakamoto discloses the help means includes means for causing predetermined positive pressure inside the cap member for a predetermined time (since Sakamoto teaches help means includes means for performing cap operation, it should cause predetermined pressure inside the cap for a predetermined time), furthermore the manner of operating the device does not differentiate the apparatus claim from the prior art.

Sugimoto fails to detect whether the cap opening operation by the capping means can be performed or not by detecting the moving distance of the carriage by an encoder.

Ito teaches detect the moving distance of the carriage by an encoder (Abstract).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to detect the moving distance of the carriage by an encoder as taught by Ito. The motivation of doing so is highly accurate printing position control can be accomplished.

Allowable Subject Matter

2. Claims 6, 7 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 6 is allowable over prior art of record because at least prior art have not been found to anticipate or teach the cap opening operating detecting means includes means for detecting a value per unit of time of the current flowing in a power source for driving the carriage.

Claim 7 is allowable over prior art of record because at least prior art have not been found to anticipate or teach the cap opening operating detecting means includes means for detecting a value per unit of time of the current flowing in a power source for driving the carriage is more than a predetermined value and the values more than the predetermined values continues for a predetermined time.

Claim 12 is allowable over prior art of record because at least prior art have not been found to anticipate or teach the cap opening operating detecting means includes means for detecting a value per unit of time of the current flowing in a power source for driving the carriage means for detecting a value per unit of time of the current flowing in

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a power source for driving the carriage is more than a predetermined value and the values more than the predetermined values continues for a predetermined time.

Response to Arguments

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T. TRAN whose telephone number is 571-272-2155. The examiner can normally be reached on M-F (7:30am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT
December 1, 2005


Stephen D. Meier
Primary Examiner